

53rd ELECTRONIC WARFARE GROUP

The **53d Electronic Warfare Group** is made up of three squadrons and two detachments: the 16th Electronic Warfare Squadron, the 16th Electronic Warfare Squadron, Detachment 1, the 36th Electronic Warfare Squadron, the 68th Electronic Warfare Squadron, and Detachment 1, 53 EWG.

The 53d EWG is responsible for providing operational, technical and maintenance electronic warfare expertise for the Combat Air Forces. The group is responsible for systems engineering, testing, evaluation, tactics development, employment, capability, and technology assessment. Group personnel develop, test, and maintain electronic warfare system hardware and software; and have the wartime responsibility for emergency reprogramming and dissemination of EW system mission data software for CAF aircraft. The group also manages the HAF-Directed COMBAT SHIELD Electronic Warfare Assessment Program for CAF aircraft EW systems. COMBAT SHIELD provides operational units a system-specific capability assessment for their radar warning receivers, electronic attack pods, and integrated EW systems.

The **16th Electronic Warfare Squadron** provides EW expertise and test facilities for mission data and EW system test and evaluation. Squadron personnel assess the maintainability, reliability, suitability, and readiness of EW systems and support equipment, and perform test and evaluation of new EW concepts for fighter, bomber, reconnaissance, and specialized EW systems. They monitor developmental testing conducted by acquisition agencies and assess the impact of these tests, providing critical expertise for EW avionics acquisition and modifications. The 16th EWS has more than \$450 million in assets, including eight system integration laboratories and five mobile test facilities. These facilities are used to validate and verify mission data software, support foreign materiel exploitations, and verify operational technical order updates prior to fielding. Squadron personnel develop, fabricate and maintain aircraft and lab test instrumentation and perform acceptance tests of all new EW-related hardware and software, as well as provide expertise to support EW system testing and training to maintenance and operational units worldwide. The squadron also provides technicians and equipment to execute the COMBAT SHIELD Electronic Warfare Assessment Program.

Detachment 1, 16th EWS at Tyndall Air Force Base, Fla., provides maintenance support and EW expertise for adversary electronic attack training pods. Used for air-to-air EW training, the pods are repaired and modified at Tyndall and shipped worldwide to fighter units. Det 1, 16th EWS also maintains electronic attack payloads for full-scale and subscale drones in support of live-fire missile testing under the Weapon System Evaluation Program.

The **36th Electronic Warfare Squadron** integrates technical and operational expertise providing unique support to build and maintain the CAFs EW capability for fighters, bombers, and special-purpose combat platforms through test and evaluation, mission data reprogramming, exercise support, EW reach back, and emergency reprogramming. The

squadron conducts operational tests of the EW systems on CAF aircraft in support of hardware and software fielding recommendations to Air Combat Command. The 36th EWS also conducts exploitation tests of foreign threat weapons radar systems against all CAF aircraft. Squadron members develop mission software used to program EW systems installed on US aircraft. This EW mission software directly impacts the success of Joint Chiefs of Staff operational plans and CAF combat missions. Included in this mission is a wartime commitment to rapidly reprogram CAF's EW mission software in response to threat radar changes. The squadron also develops and publishes EW system handbooks providing critical employment guidance to CAF and allied nation warfighters.

The **68th Electronic Warfare Squadron** improves EW effectiveness and directly supports the CAF and Allied nations through test and evaluation, mission data reprogramming, exercise support, EW reach-back, and emergency reprogramming. The EW Operations Support Flight provides EW support to the warfighter and assures combat EW reprogramming to over 2,100 CAF users globally. They oversee the development of web-based EW reachback tools and EW Help Desk operations providing 24/7 EW assistance to the CAF and Allied nations. The flight also evaluates contingency plans and the Multi-Service Data Distribution System network connectivity to assure off-site support for 24/7 EW reprogramming, and provides baseline threat emitter mode simulation to support all EWG US and FMS MD reprogramming testing. Additionally, the flight coordinates EW outreach programs providing aircrew training and support at RED FLAG, organizes EW agenda items for CAF tacticians and weapons officers at the CAF SEAD and EW / Weapons and Tactics Conferences, and educates USAF general officers during the Senior Leader EW Course. The squadron's Intelligence Flight provides the wing commander and subordinate organizations with specialized information support to include intelligence reporting on enemy doctrine, weapons development, tactics, and adversarial capabilities. The Intelligence Flight also produces command and control warfare products for the CAF, supports fighter and bomber electronic warfare reprogramming, assists wing test and weapons systems evaluation programs, and provides access to intelligence databases and systems to host and tenant units at Eglin. The Conventional Systems Flight provides missionized software, ensuring aircraft survivability, for Foreign Military Sales and allied partner F-16, F-15, and E-3 EW equipment; and provides missionized software for FMS and allied partner EW training pods to simulate enemy threat electronic countermeasures for aircrew training and weapons evaluation. The flight also generates EW reprogramming mission data support, maintains emitter data files, develops integration and implementation documentation, and provides expert system training for all conventional EW FMS cases. The Advanced Systems Flight provides FMS allied partners with advanced system program EW software development and reprogramming. It generates EW reprogramming mission data support, maintains emitter data files, develops integration and implementation documentation, and provides expert system training for all advanced EW FMS cases. The flight also conducts operational tests of modified EW systems, makes fielding recommendations, and exploits foreign threat systems to ensure continued mission effectiveness in a dynamic threat environment.

Detachment 1, 53d EWG, is the 53d EWG's execution agent for ground-based foreign materiel exploitations, western test range electronic warfare support, COMBAT SHIELD EW effectiveness assessments, supporting combined air operations center Nellis activities, and intelligence, surveillance, and reconnaissance activities at the Nevada Test and Training Range. Detachment personnel coordinate test plans, work schedule and support issues with the range, assist with shipping and bed down of test equipment, and participate in execution of testing and subsequent data analysis. Detachment 1 coordinates and executes COMBAT SHIELD ground-check activities of electronic warfare suites for RED FLAG participating units and western CONUS bases.